



## Surface Water Ambient Monitoring Program (SWAMP)

### Overview

The [California Surface Water Ambient Monitoring Program](#) (SWAMP) was created to fulfill the legislative mandate for a unifying program that would coordinate all surface water quality monitoring conducted by the State and Regional Water Boards. The SWAMP program conducts water quality monitoring directly and through collaborative partnerships, and provides numerous reports, fact sheets and tools, all designed to support water resource management in California. SWAMP monitoring programs are designed to address one or more of the following assessment questions:

- *Status*: What is the overall quality of California's surface waters?
- *Trends*: What is the pace and direction of change in surface water quality over time?
- *Problem Identification*: Which water bodies have water quality problems and which areas are at risk?
- *Diagnostic*: What are the causes of water quality problems and where are the sources of those stressors?
- *Evaluation*: How effective are clean water projects and programs?

The equivalent of four full-time positions (4 PY) is dedicated to the [Central Valley Water Board SWAMP program](#) with additional support provided by eight temporary scientific aids. SWAMP staff members coordinate closely with other regional programs like the Irrigated Lands Regulatory Program (ILRP), Non-point Source Program (NPS), and the Delta Regional Monitoring Program (Delta RMP) to provide monitoring support, manage and share data, and leverage resources.

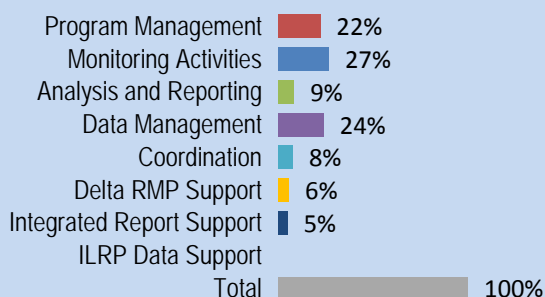
### Goals

The Central Valley Water Board has four overarching goals for its SWAMP efforts:

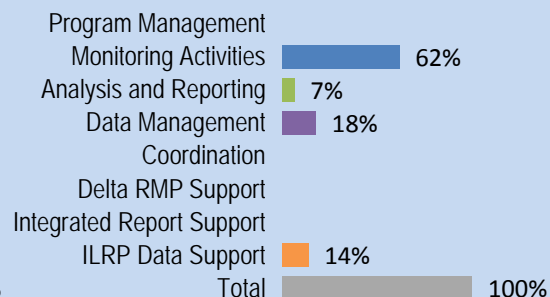
- Evaluate ambient water quality, beneficial use protection, and potential sources of impairment.
- Evaluate effectiveness of the Water Board water quality improvement policies.
- Coordinate internal and external monitoring efforts to leverage limited resources.
- Ensure timely availability of monitoring results.

In FY 16/17, the estimated percentage of time permanent staff and scientific aids will spend on core SWAMP activities identified to meet these goals are shown in the graphs below.

#### Staff



#### Scientific Aids



# Priority Projects and Performance Measures for FY16/17:

## Monitoring Efforts

- [Safe to Swim](#): SWAMP will complete its tenth season of monitoring to assess recreation safety in Central Valley's rivers and streams. Rancho Cordova staff is focusing their efforts on a subset of historically impacted watersheds in the Sacramento and San Joaquin River Basins and will conduct a microbial source tracking study during the 16/17 fiscal year to identify dominant sources of fecal pollution. Fresno staff will be monitoring *Escherichia coli* indicator bacteria levels at sites in the Kern watershed.
- [Sacramento Watershed Coordinated Monitoring Program](#): In 2016, SWAMP and the Department of Water Resources (DWR) began the ninth year of water quality trend monitoring in the Sacramento watershed. Water samples are taken quarterly at 56 sites throughout the watershed and analyzed for a wide range of constituents.
- [Tulare Lake Basin Rotational Monitoring](#): Fresno staff will initiate monitoring in the Kern River watershed, the last of four major watersheds, as part of the multi-year Tulare Lake Basin Rotational Monitoring Program.
- [Cyanobacteria and other Harmful Bacteria \(CHAB\) Response](#) - Cyanobacteria and other harmful algal blooms (CHABs) have increased in geographic range, frequency, duration and severity in recent years. In 2016, Central Valley Water Board SWAMP staff will be trained in identifying and sampling toxic algae. Staff will work with the Central Valley Water Board CHAB coordinator and the State Water Resources Control Board to conduct initial bloom response monitoring as needed.

## Support for the Delta RMP

SWAMP contract resources will continue to support targeted toxicity monitoring as part of the [Delta Regional Monitoring Program's Monitoring Design](#) to assess impacts of current use pesticides.

Because the focus of SWAMP is surface water monitoring and assessment, performance measures for the Central Valley Water Board's regional program emphasize the analysis and interpretation of information collected. This includes online posting of project fact sheets and review of study results with management. This will allow the Central Valley Water Board to make informed decisions regarding water quality issues that may need further attention. The following table shows the SWAMP performance measures for FY 16/17.

Measure	Performance Measures	Deliverable Date
1	Complete 2017-2020 SWAMP budget planning (statewide contracts)	30 September 2016
2	Microbial Source Tracking – Complete contract	31 January 2017
3	DWR Coordinated Monitoring – <i>E.coli</i> results summarized and presented to Assistant Executive Officer	31 January 2017
4	Safe to Swim –Results summarized and presented to Assistant Executive Officer Fact Sheet posted online for 12-month study	31 January 2017 30 June 2017
5	San Joaquin River Toxicity - Results summarized and presented to AEO and related program managers	31 May 2017
6	Tulare Lake Basin Rotation Monitoring - Fact Sheet(s) posted online with Assistant Executive Officer approval	30 June 2017